

250-4.

*Globe*

# The Globe Automatic Sprinkler System





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# Edison Automatic Sprinkler System

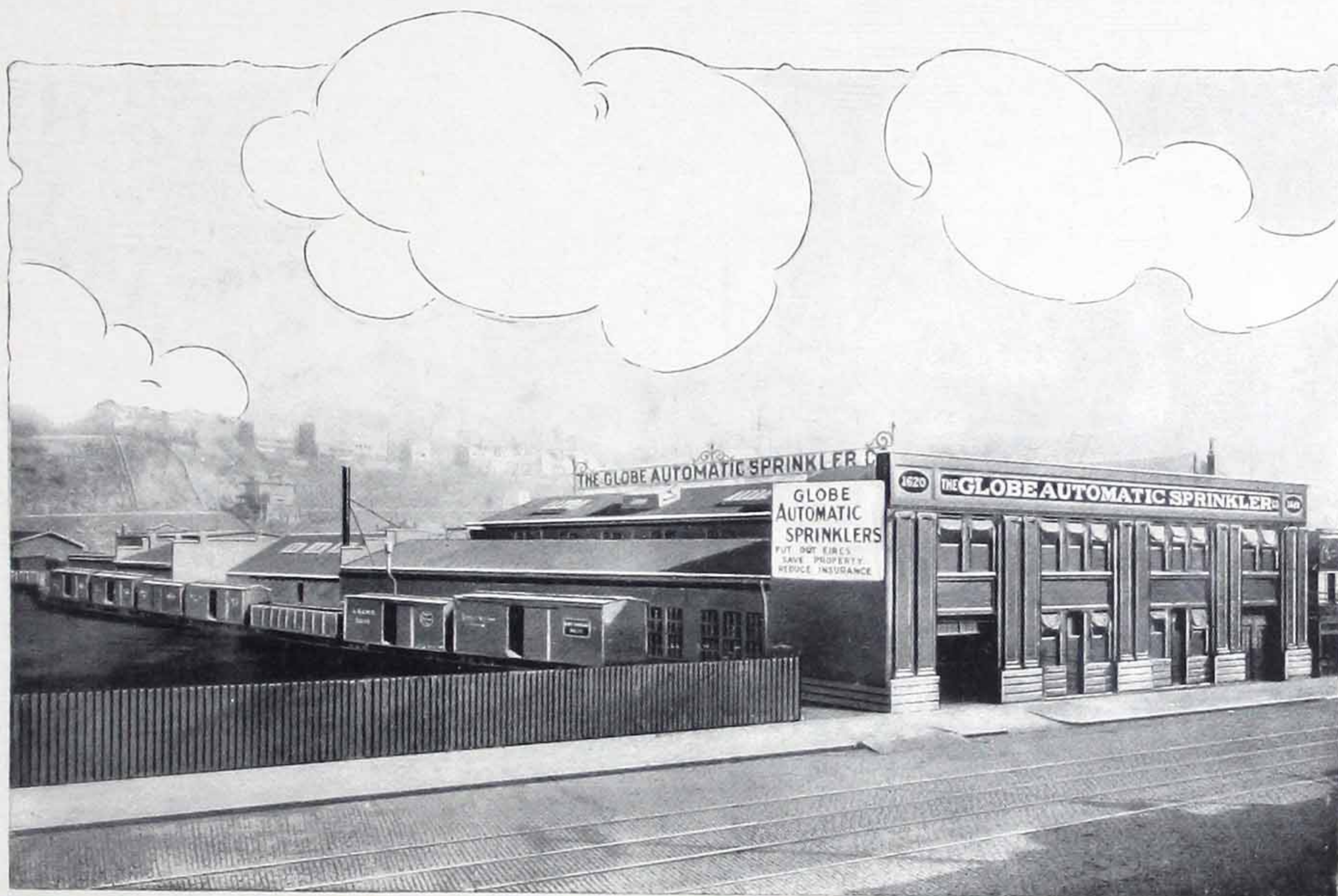
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SEP 21 1914

# *The* GLOBE AUTOMATIC SPRINKLER COMPANY



1610-1620 Reading Road  
CINCINNATI, U. S. A.





**T H E  
G L O B E  
A U T O M A T I C  
S P R I N K L E R  
C O M P A N Y**

**C I N C I N N A T I  
U . S . A .**

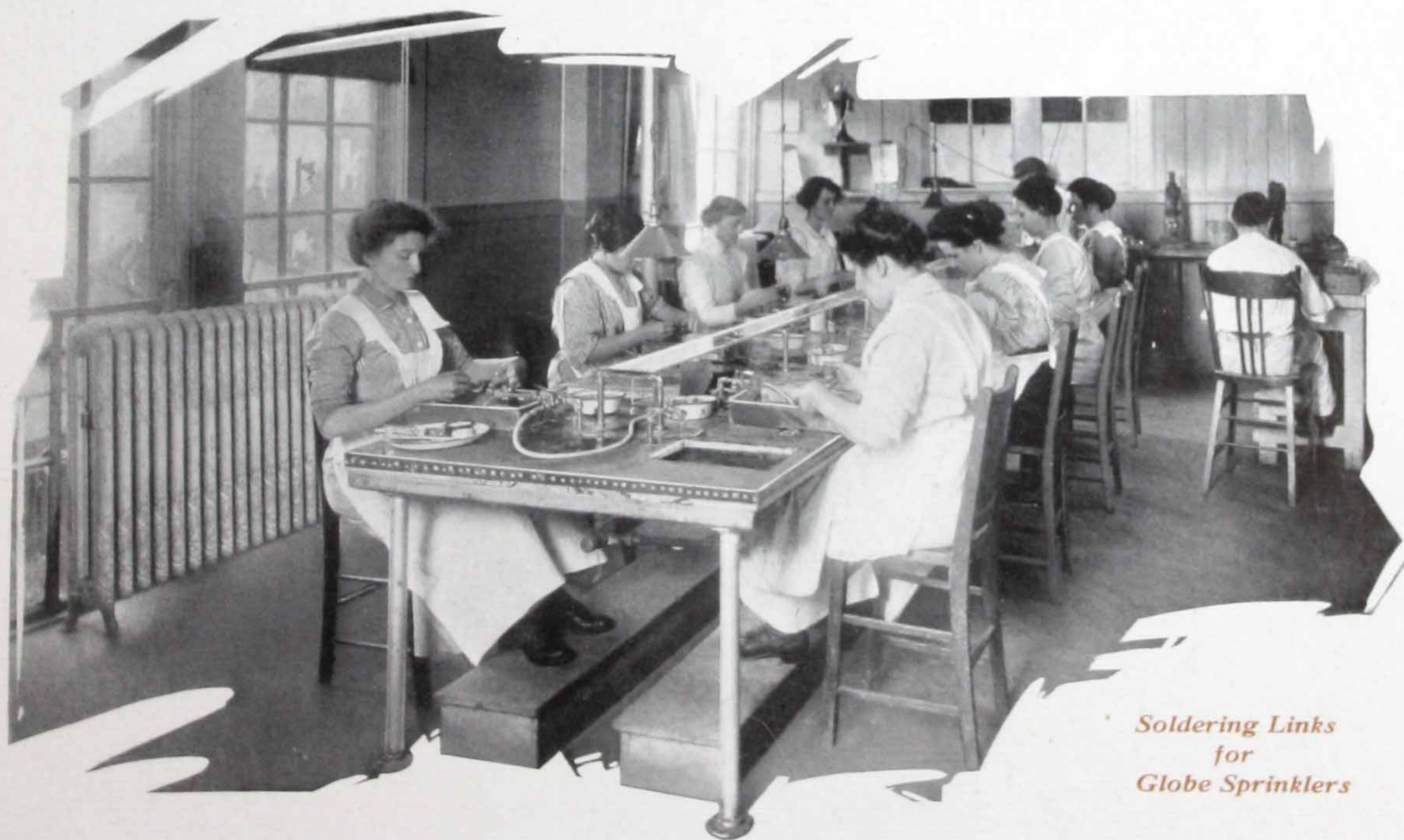


# GLOBE AUTOMATIC SPRINKLER SYSTEM

THE annual fire waste of the United States has become so appalling, that certain men who have large interests at stake have begun to carefully investigate the underlying causes. This investigation has become so thorough that the results form the basis of a new engineering science, that of fire prevention. All problems relating to the proper construction of buildings, as well as the care of occupancy and the proper equipment for the extinguishment of fires, fall within its scope and have been scientifically analyzed.

As this is a subject about which every owner of property or representative of property is concerned, general interest has been manifested in the resulting campaign to reduce the unnecessary annual destruction of life and property.

Associations have been formed in many cities to educate the business man to a realization of the danger to the community from fire, with the purpose of having them feel the importance of taking an active part in the campaign and having each man do his duty, in making all property for which he is responsible, scientifically safe against fire, and not a constant and impending danger to his own business and the property of his neighbor.



*Soldering Links  
for  
Globe Sprinklers*

72 05430-68 JT



# GLOBE AUTOMATIC SPRINKLER SYSTEM

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In the more progressive cities, the municipal administration, realizing the importance of reaching results more speedily than by an individual appeal, have passed stringent ordinances compelling the owners of certain classes of property to make certain recommended improvements in construction and equipment. These ordinances are aimed at all property which may be considered a fire hazard, and, consequently, dangerous to life and property. The following classification is generally adopted:

1st — Industrial buildings, regardless of construction, where commodities in any way combustible are manufactured or stored.

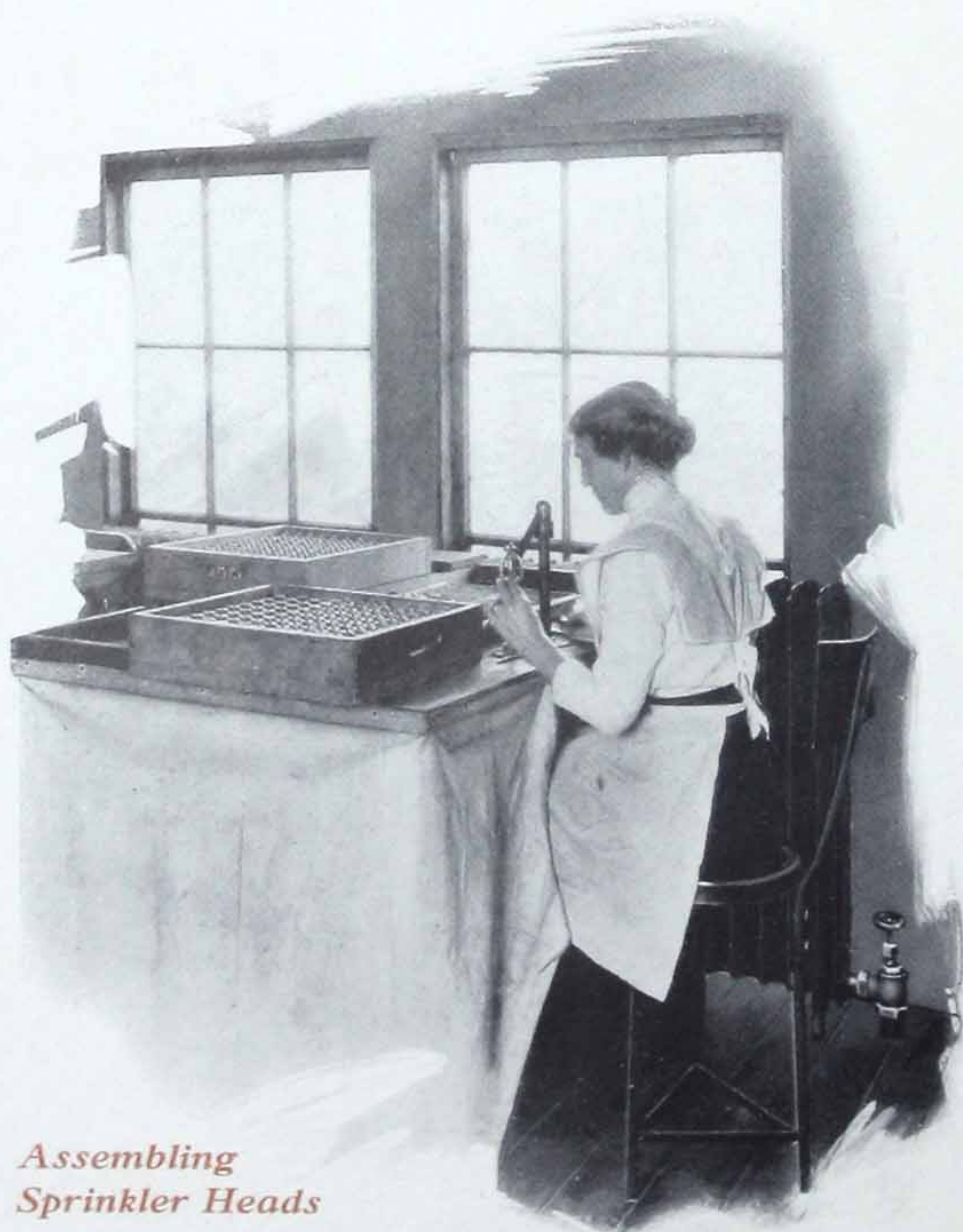
2d — All high buildings in which the city fire department can not fight a fire successfully on account of lack of sufficient water pressure.

3rd — Buildings in which people congregate in numbers, such as theaters, schools, hospitals, asylums and hotels.

These ordinances are executed by a Public Safety Department, whose orders are enforced by an army of deputies who are empowered to impose heavy fines for non-compliance. The ordinances referred to specify automatic sprinkler equipment as compulsory in the classes of buildings listed. It is an assured fact that all cities of the United States will follow the lead of these more progressive ones and pass similar ordinances.

The mistake of considering a business fireproof because the building housing it is constructed of approved fire-resistive materials is frequently made.

A fireproof building is fireproof only as long as a hot fire does not gain headway within it. Of itself, it does not contain means of preventing this fire from spreading. It will be seen that when the contents are combustible, no form of construction is adequate protection against fire. It will be found on investigation that a Globe



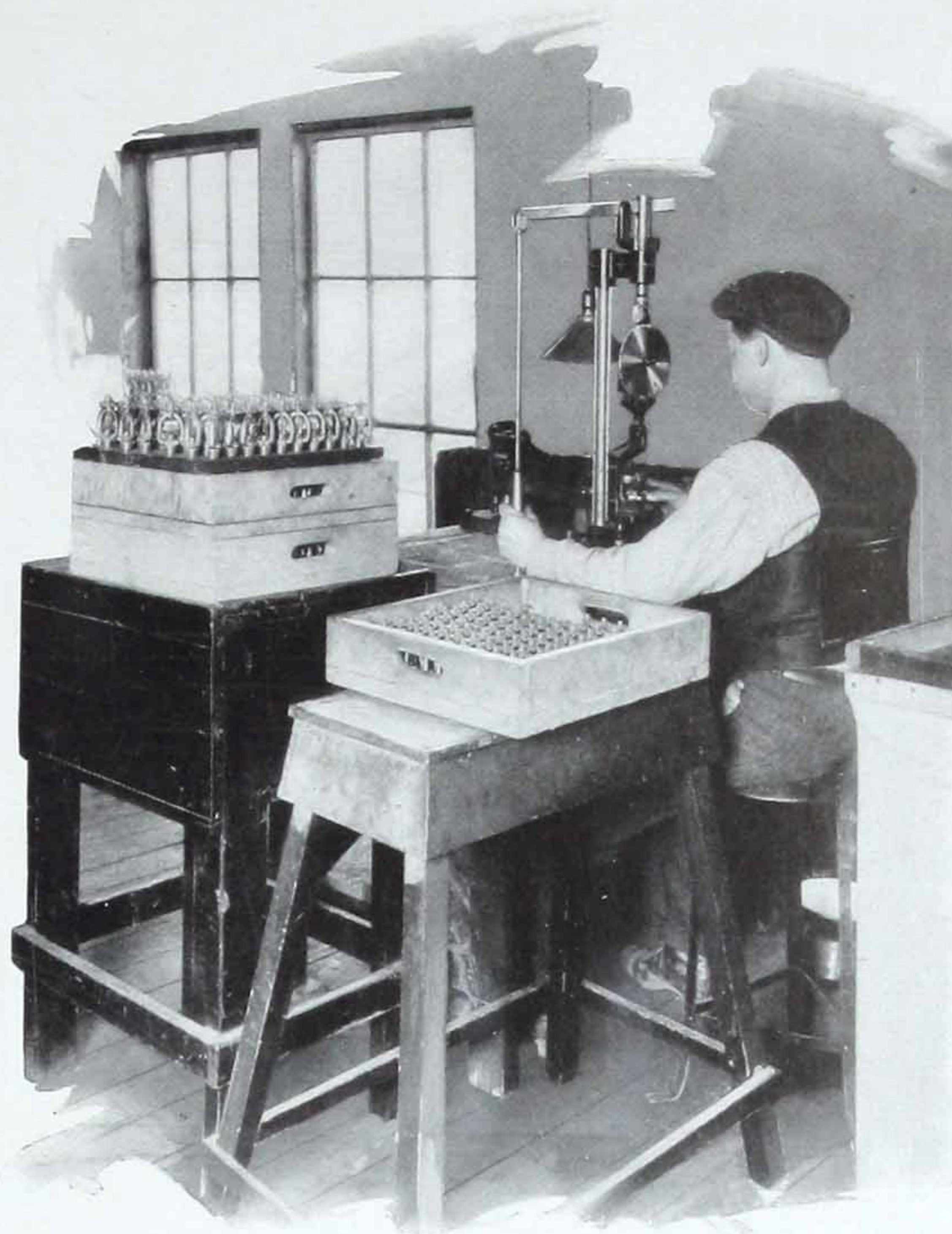
*Assembling  
Sprinkler Heads*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

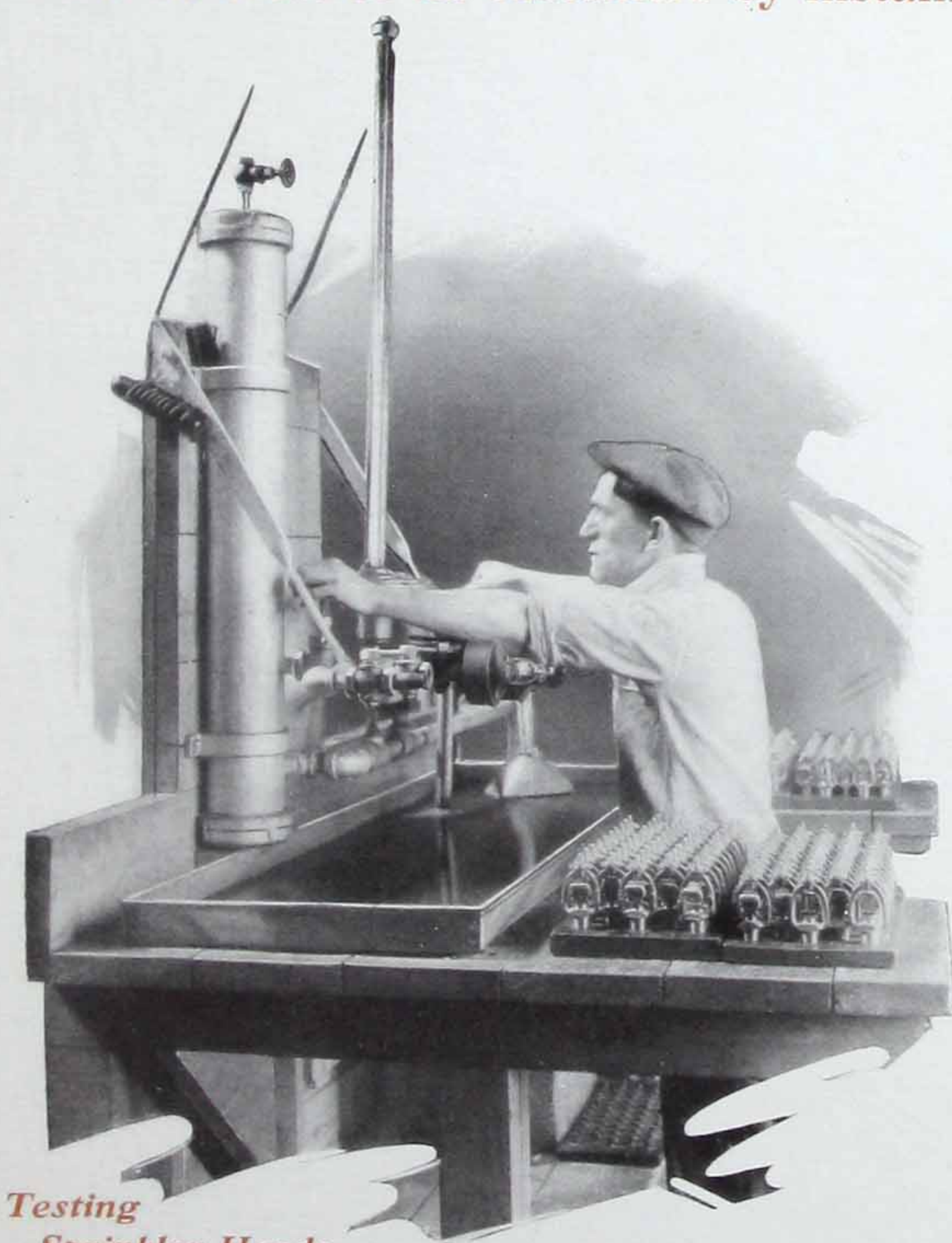
Sprinkler System is the cheapest and most effective form of fireproofing any building. A Globe Sprinkler System, however, does more than merely fireproof the building; it fireproofs combustible contents as well, thus protecting not the mere shell of the business, but protecting it as an active and operating unit, enabling it to assure its customers that fulfillment of their contracts is certain, and that there is no danger of invoking any clause voiding their contracts on account of "fire."

A great many large corporations of the United States will not contract for their full requirements in any particular commodity or material, unless the concern negotiating for the business has protected the interest of its customers by installing



an automatic sprinkler system. In some instances where the exclusive output of a factory is contracted for, the purchaser makes his contract contingent upon the installation of this fire protective appliance. These are men who know the value of an automatic sprinkler system after thorough investigation and practical experience with results.

The National Fire Protection Association (an authoritative body of experts on the Fire Problem) are collecting exhaustive statistics of the comparative protective value of building material and fire extinguishing appliances. The following figures, taken from their report of April, 1914, will prove interesting:



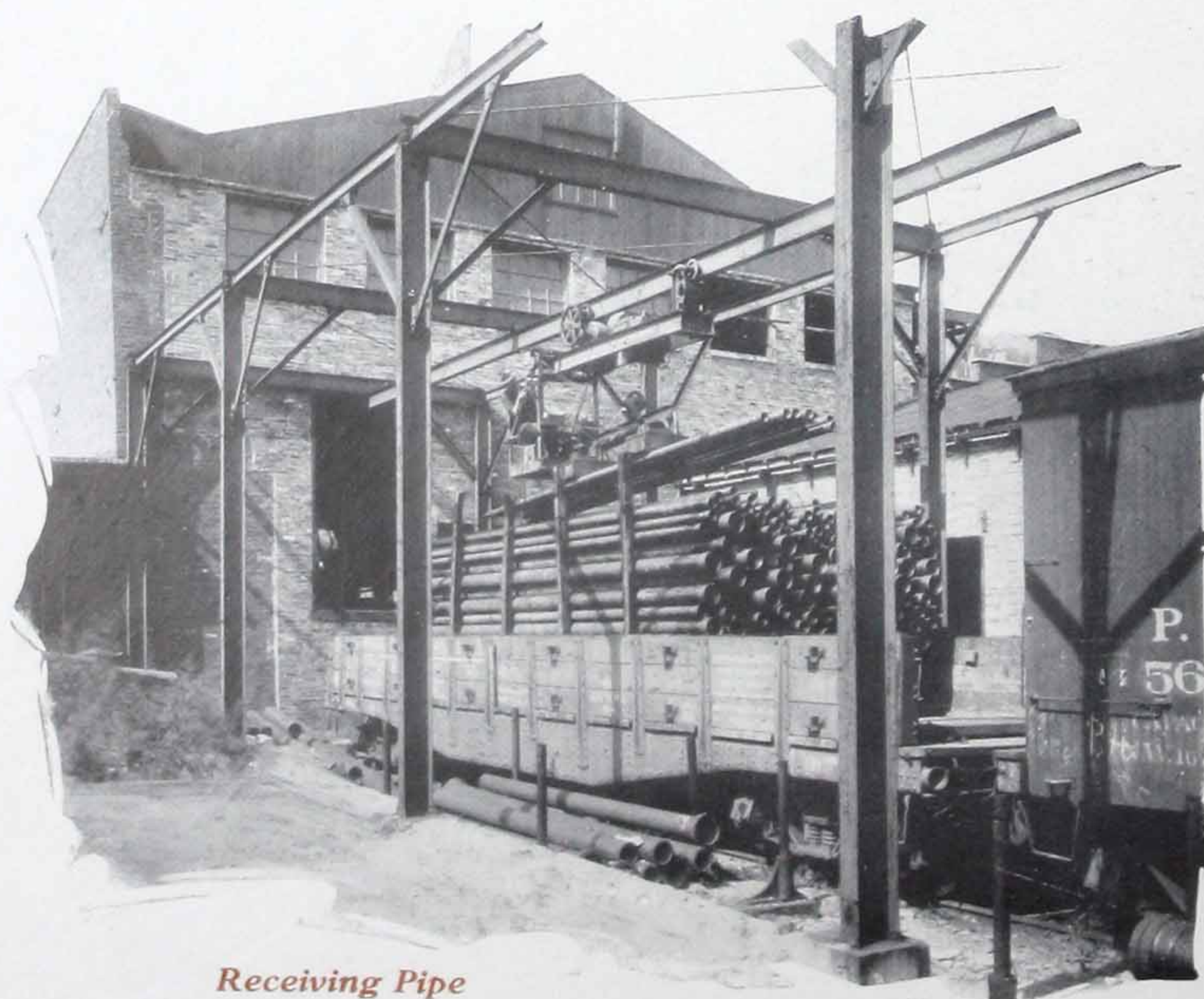
Testing  
Sprinkler Heads



# GLOBE AUTOMATIC SPRINKLER SYSTEM

No. OF SPRINKLERS OPERATING.	No. OF FIRES		PER CENT OF WHOLE	
	1913-1914	1897-1914 INCLUSIVE.	1913-1914	1897-1914 INCLUSIVE.
1 .....	401	4,374	33.9	30.5
2 .....	215	2,310	18.2	16.1
3 .....	98	1,463	8.3	10.2
4 .....	97	1,062	8.2	7.4
5 .....	45	688	3.8	4.8
6 .....	50	589	4.2	4.1
7 .....	33	390	2.8	2.7
8 .....	35	383	3.0	2.7
9 .....	22	253	1.85	1.8
10 .....	16	233	1.4	1.6
11 .....	13	200	1.1	1.4
12 .....	20	212	1.7	1.5
13 .....	5	115	0.4	0.8
14 .....	16	144	1.4	1.0
15 .....	9	113	0.8	0.8
16 to 20 .....	23	389	1.9	2.7
21 to 25 .....	22	258	1.85	1.8
26 to 30 .....	12	185	1.0	1.3
31 to 35 .....	11	107	0.9	0.7
36 to 40 .....	5	92	0.4	0.6
41 to 50 .....	9	131	0.8	0.9
51 to 75 .....	14	182	1.2	1.3
76 to 100 .....	4	89	0.3	0.6

This table shows the number of fires in sprinkled buildings for which the National Fire Protection Association has statistics, and the number of sprinkler heads which operated in each case to control the fire. The Boston Manufacturers Mutual Insurance Company, under date of January 27, 1914, makes the following report of their average fire loss ratio:



*Receiving Pipe*

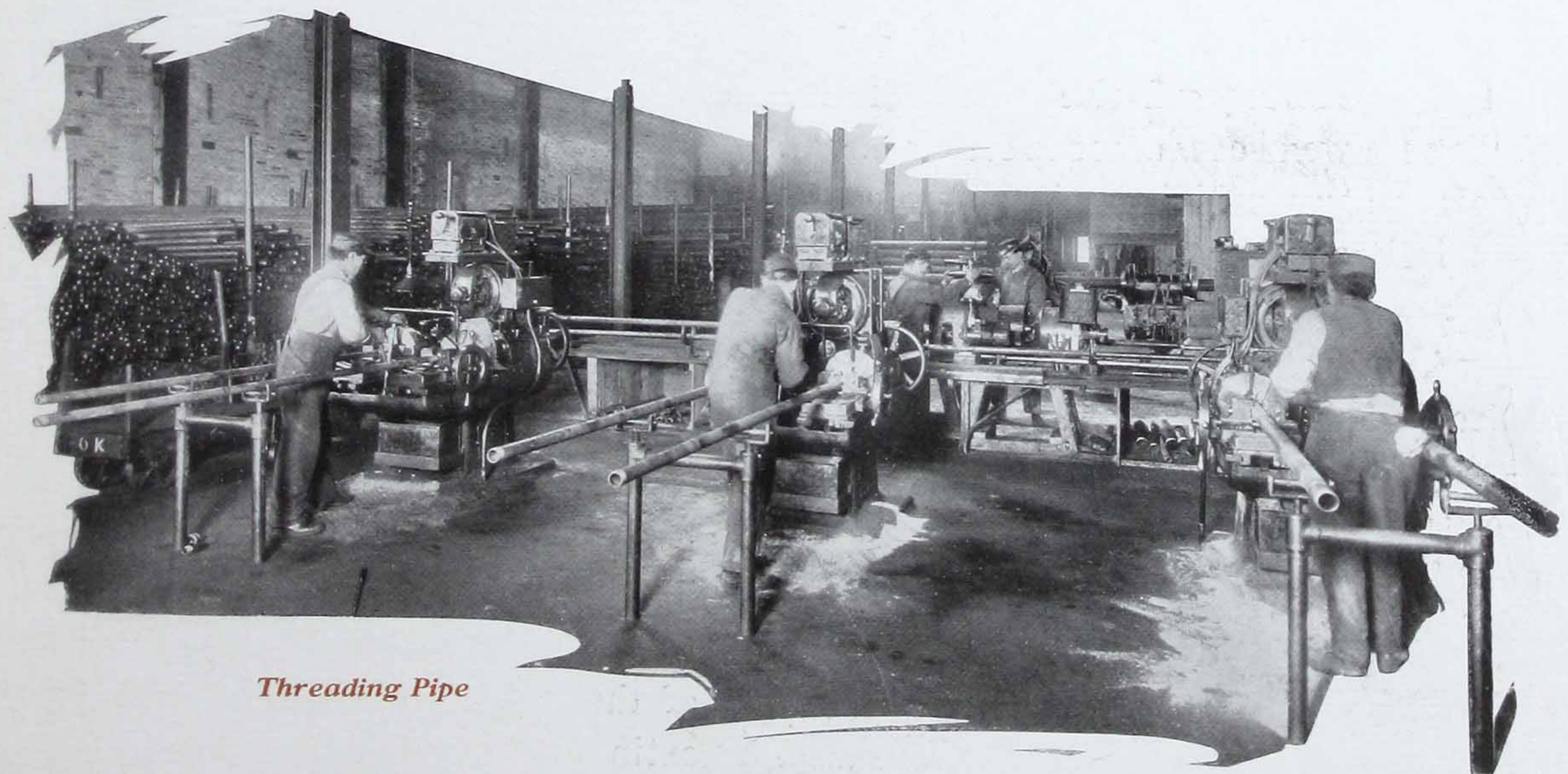


# GLOBE AUTOMATIC SPRINKLER SYSTEM

	AMOUNT.	LOSSES.	RATE OF LOSS TO AMOUNT WRITTEN. CENTS PER \$100.
1850-1875, inclusive . . . . . Before buildings were equipped with sprinklers.	\$406,284,084.	\$1,027,536.	\$0.2529
1876-1895, inclusive . . . . . Buildings partially equipped with sprinklers.	\$1,551,259,471.	\$2,809,536.	\$0.1810
1896-1913, inclusive . . . . . Buildings fully equipped with sprinklers.	\$4,197,586,800.	\$1,639,635.	\$0.0390
1909-1913, inclusive . . . . .			\$0.0368

It would be an easy matter for the owner of a building, or for the man responsible for the safety of the property, to extinguish a fire in its incipency, if it were known in advance when and where a fire in this property would take place. He would have the necessary men and appliances on the ground to extinguish the small blaze immediately, before it could gain headway, which could be easily accomplished. It is a sad truth that it is impossible to know when and where that all-destructive fire will start. The moment that every part of the property is not watched is the very moment that the vigilance for fire relaxes and a fire is most likely to occur.

The Globe Automatic Sprinkler System assumes this responsibility and is ever watchful, operating instantaneously and automatically on the smallest blaze when it is easiest to extinguish the fire without unnecessary damage to property. It acts as the watchman who never sleeps and the private fire department on the ground at the point where most needed. No human agency is necessary to make it operate.



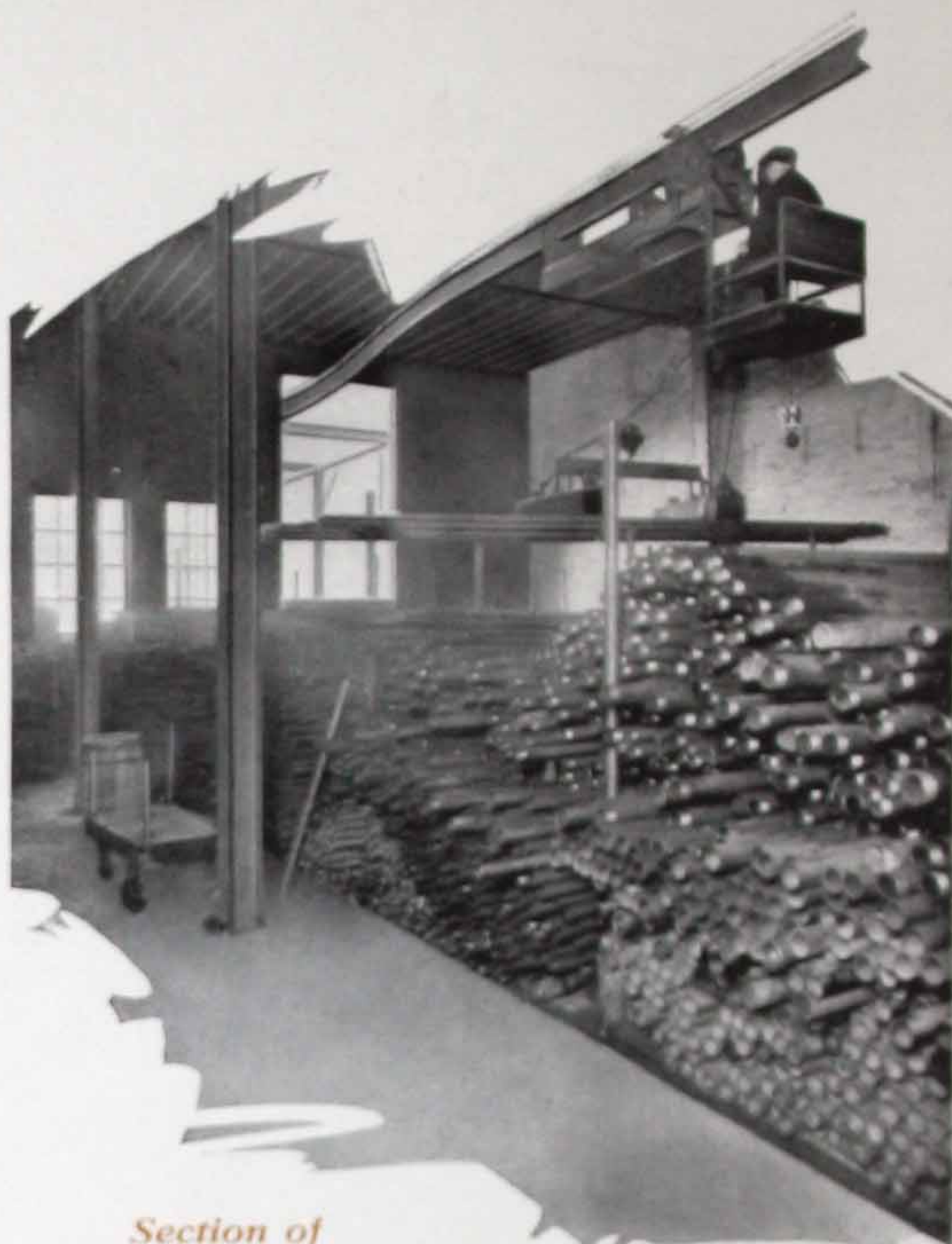
*Threading Pipe*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

No part of the building equipped with Globe Sprinklers is unprotected; whenever and wherever a fire occurs it attracts unto itself its own death by opening a sprinkler head, which submerges it in water. This operation also rings a gong which notifies anyone within hearing of the fire. As soon as the fire has been extinguished, the person who was notified by the gong turns a controlling valve, thereby stopping the flow of water.

This minimizes the water damage resulting from the fire, only the burning portion of the building and contents being touched by the water. A Globe System automatically brings the water directly to the seat of the fire where it is most efficient. This instantaneous action does away with



*Section of  
Pipe Bins*



*Receiving  
Fittings*

all unnecessary drenching by hose streams of the fire department of other and surrounding property to retard the progress of the flames, thereby increasing the water damage to a maximum.

Second only to the owner of the property the Underwriters may be considered as having the greatest *money interest* in the prevention of fires. Their engineering experts know the protective value of a Globe Automatic Sprinkler System. As an inducement to their clients to reduce their fire hazard and in recognition of their confidence in its ability to extinguish any incipient small blaze



# GLOBE AUTOMATIC SPRINKLER SYSTEM

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unaided and automatically, *large reductions in insurance rates*, ranging from 40 to 90% are granted. It is estimated that the savings effected in the annual cost of fire insurance will be sufficient to reimburse the property owner for the cost of installation in from three to five years, depending on the volume of insurance carried, the nature of the risk and local conditions. This means an annual return or an annual dividend of approximately 25% on the investment, as there are no appreciable maintenance or repair charges, and the life of the equipment is limited only by the life of the building in which it is installed. The exact percentage of this dividend will depend upon the volume of insurance carried and the rate at which it was written, previous to the installation of the Automatic Sprinkler System.

Experience has shown that frequently a progressive and growing concern finds it impossible to make a capital investment, though most necessary and desirable, as its banking facilities are exhausted in the expansion of the business. To meet a growing need, the Globe Automatic Sprinkler Company has arranged to finance equipments for prospective buyers; that is, to extend long terms of credit, taking in payment the savings effected annually in the cost of insurance. By this method, the owner of the property has protection against fire absolutely without cost immediately and after several years, reaps the benefit of the greatly reduced cost of insurance, having added a valuable asset to his business without spending a dollar.

From the moment the equipment is in service, he has absolute security for the uninterrupted continuance of his business, the value of which is not covered by his insurance policy and can not be insured.

## *Description of System*

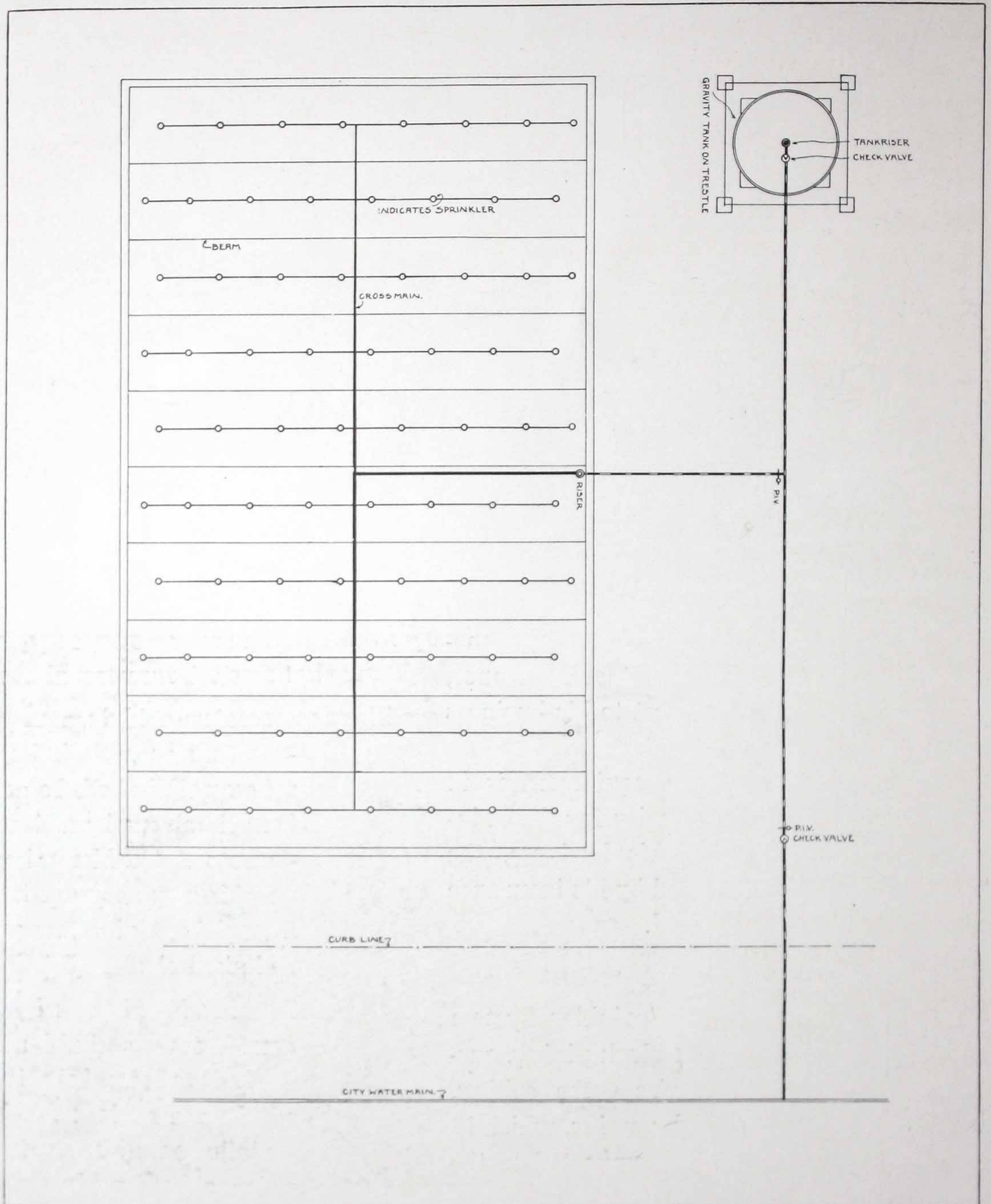
The Globe Automatic Sprinkler System consists of parallel lines of black piping, suspended about 10 inches from the ceiling, these pipes being supplied by mains, which in turn are supplied by risers connected to the main source of water supply at the base. Globe Sprinkler heads in an upright position,



*Section of Pipe Fitting Bins*



# GLOBE AUTOMATIC SPRINKLER SYSTEM



Model Plan Showing Sprinkler Installation in Factory



# GLOBE AUTOMATIC SPRINKLER SYSTEM

are screwed upon these lines eight to ten feet apart. This spacing of the heads and between the lines of the piping is controlled by the rules of the Underwriters, depending upon the construction of the building. Each sprinkler head protects from 64 to 100 square feet of floor area.

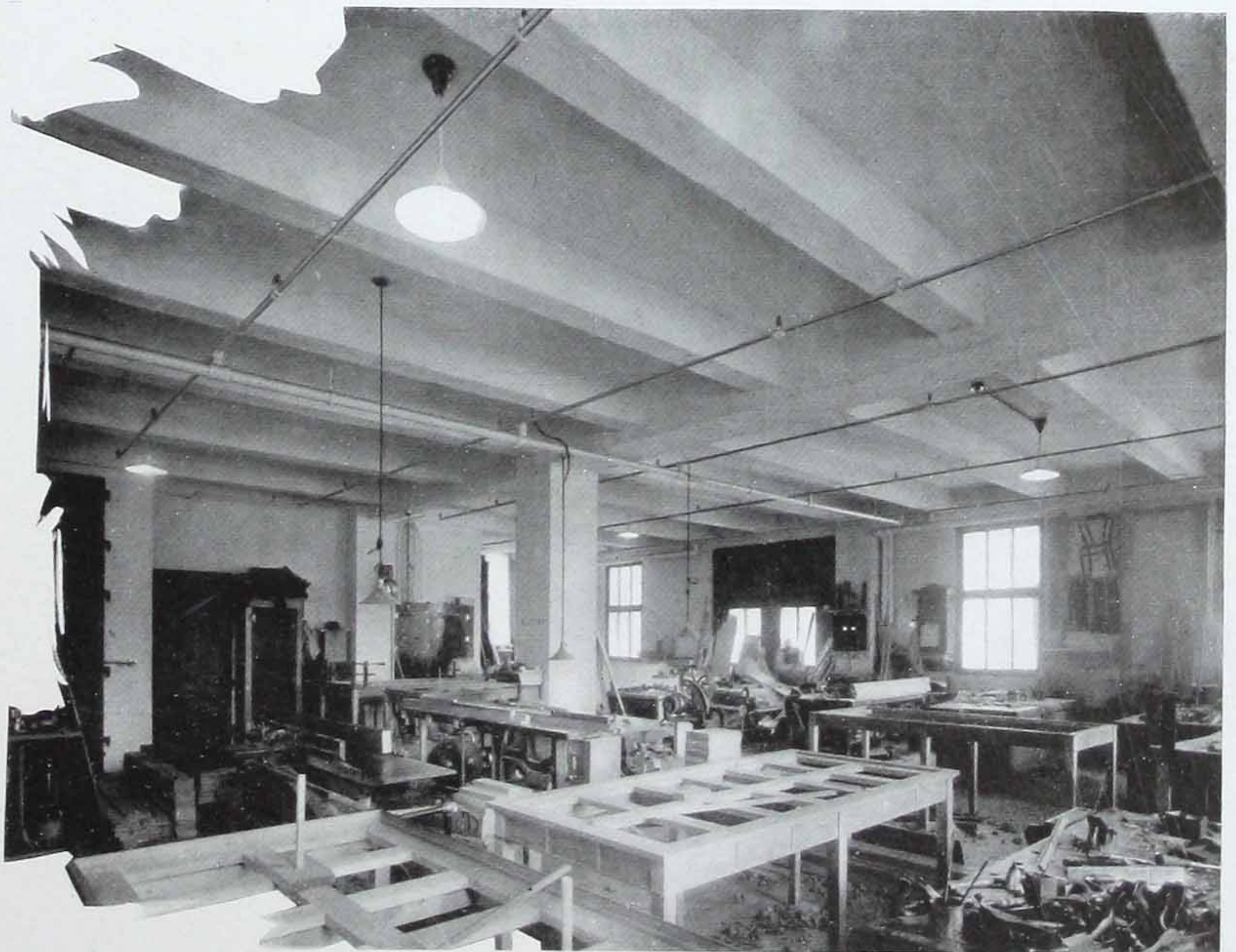
In ornamental buildings the exposed lines of piping are at times considered to detract from the artistic harmony of the decorations. When conditions of this kind are met, the piping is concealed in the ceiling; the sprinkler head, in pendant position, being the only evidence of the equipment.

The Globe Sprinkler Head is in itself of attractive design, and the ceiling decorations can be further easily arranged by means of stucco rosettes, etc., to include the sprinkler heads.

The Globe Engineering Department carefully surveys the building before the installation proceeds and prepares detailed plans showing the location of all heads. In making this survey, all concealed spaces, closets, desks, etc., are noted, and are shown on the plans, guaranteeing the purchaser of a Globe System that every square foot of his property is protected by the range of one of these heads.

The heat, gas or vapor from any small blaze starting in any part of the building immediately rises to the ceiling and automatically fuses the sensitive link of the head, guarding that particular area, drenching it with water. Only such heads open as are required to extinguish the fire, and are directly subject to its heat.

Two independent sources of supply of water are usually maintained, consisting of a city connection with either gravity or pressure tank. When city



*Carpenter Shop, Metropolitan Museum of Art, New York City  
Showing Globe Sprinkler Lines*



# GLOBE AUTOMATIC SPRINKLER SYSTEM



*Gravity Tank Installed  
at the Plant of K-W  
Ignition Co., Cleveland*

water is not available, the double supply is secured from two independent tanks. All supplies are connected to the equipment at the base of the riser. The Underwriters specify the supplies required for any installation, and in making a ruling in any case, give consideration to the pressure as well as the volume of the supply; as a sprinkler head is designed to instantly extinguish incipient blazes, it is most efficient at the very outset of the fire. At this stage, heavy pressure is of the greatest importance in securing the very best results. The Underwriters call for 15 pounds pressure on the highest row of sprinklers. This necessitates elevating a gravity tank 25 feet above this level to allow sufficient margin of safety to secure the necessary pressure. The gravity tank here mentioned may be erected either on the roof of the building or upon an independent steel tower, depending upon local conditions. Systems supplied from one source only, namely, city connection, are now becoming very popular in small buildings where the city pressure and the size of the mains are ample to maintain the necessary pressure on the highest row of sprinklers. This makes a sprinkler equipment a good investment for small plants.

A sprinkler system may be either wet or dry, depending upon conditions. When the building, or that portion of the building under consideration, is heated during cold weather, eliminating any danger of freezing water in the pipes, a WET System is installed.

In an installation of this kind, a Wet Alarm Valve is located at the base of the main riser of the system within the building. A sprinkler head opening in any part of the building



*Pressure Tank  
Installed at  
Whitaker Paper Co.  
Cincinnati*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

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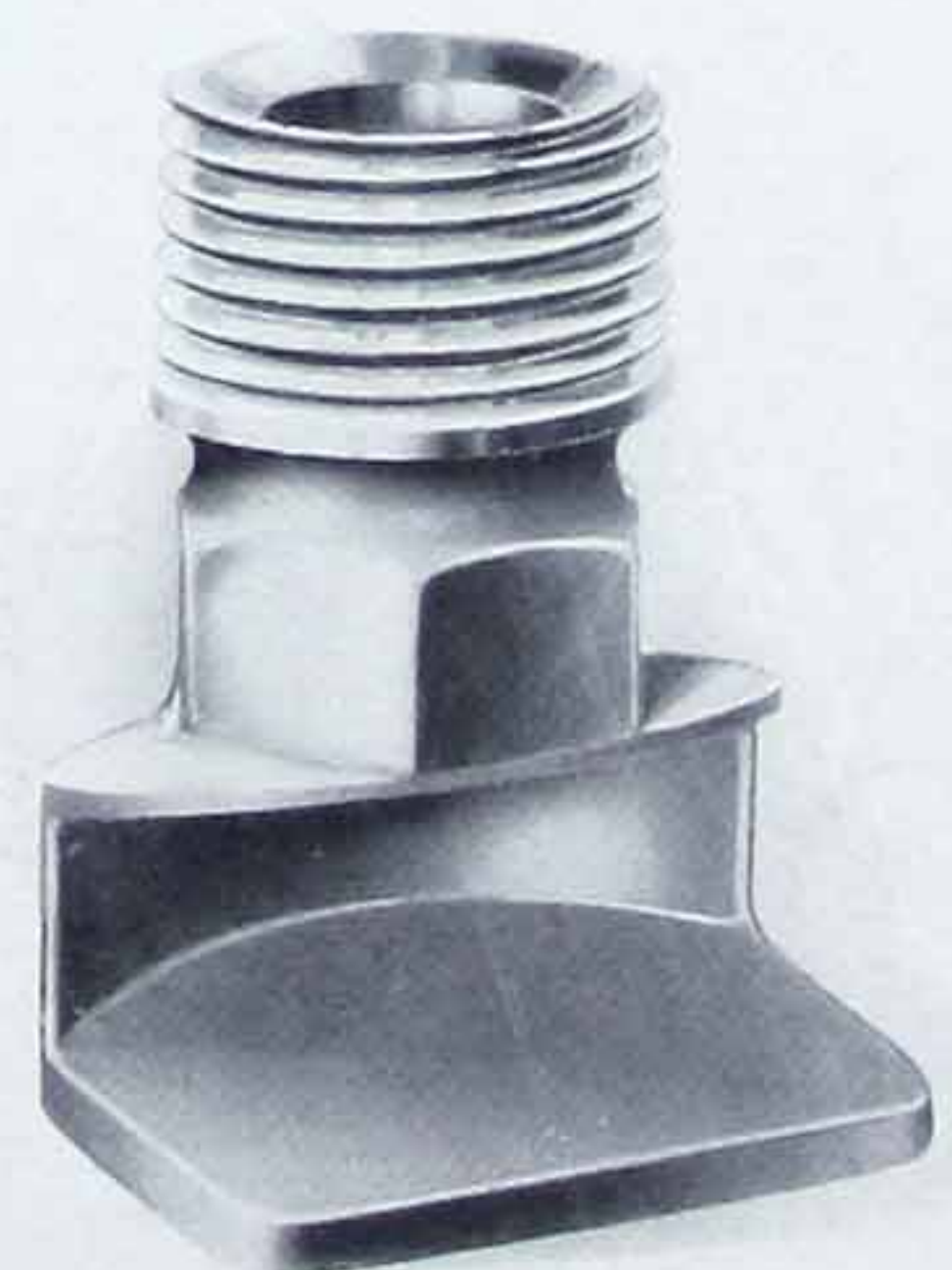
instantly puts the water, usually stationary, into circulation. This circulating water passes through the Wet Alarm Valve, opens the clapper, which action rings an electrical or mechanical alarm. Where there are several systems in a plant, an annunciator connected to the alarm system is placed in the main office and instantly shows in what part of the building the system is operating. In this way, a watchman, or any other person within hearing, is notified of a fire and is instantly brought to the scene. This prevents any unnecessary water damage; the instant that a fire is extinguished, the turning of a controlling valve stops the flow of water.

In addition to this notice of a fire within the building, a great many cities now maintain what is known as supervisory service, whereby any operation of the system also registers at a central office.

A dry pipe system is installed in buildings or portions of buildings unheated during cold weather. If the pipes contained stationary water under these conditions, the consequent freezing would render the system inoperative. To obviate this difficulty, air under pressure is maintained on the system in place of water. At the base of the riser a dry pipe valve is substituted for the Wet Alarm Valve previously mentioned. A column of compressed air of about 40 pounds pressure, by means of a Globe Dry Pipe Valve, holds in check, by a careful adjustment, the water under heavy pressure from the source of supply. The opening of any sprinkler head instantly reduces this pressure and operates the valve, allowing the circulating water in the system to be carried directly to the point where the head has opened. The alarm attachments mentioned in connection with the Wet Alarm Valve are also installed with this valve.

## *Water Curtain*

An Automatic Sprinkler System is designed to protect property against fire originating on the premises. Very frequently the owner of a building finds himself the victim of the carelessness of the owner of the adjoining property. In other words, the adjoining property is considered a hazardous risk by the Underwriters, and he must pay for a condition for which he is in no way responsible, both in the risk to his business and in the increased rates. A Water Curtain is designed to relieve this hardship. Window or Eave Sprinklers are placed over each window or door, under the eaves, and over any other combustible parts of the exposed wall. Sprinklers are so placed that all inflammable material is protected by their



*Globe Eave Sprinkler*



# GLOBE AUTOMATIC SPRINKLER SYSTEM



*Underwriters Pattern  
Post Indicator Valve  
for Outside Control  
of Sprinkler System*

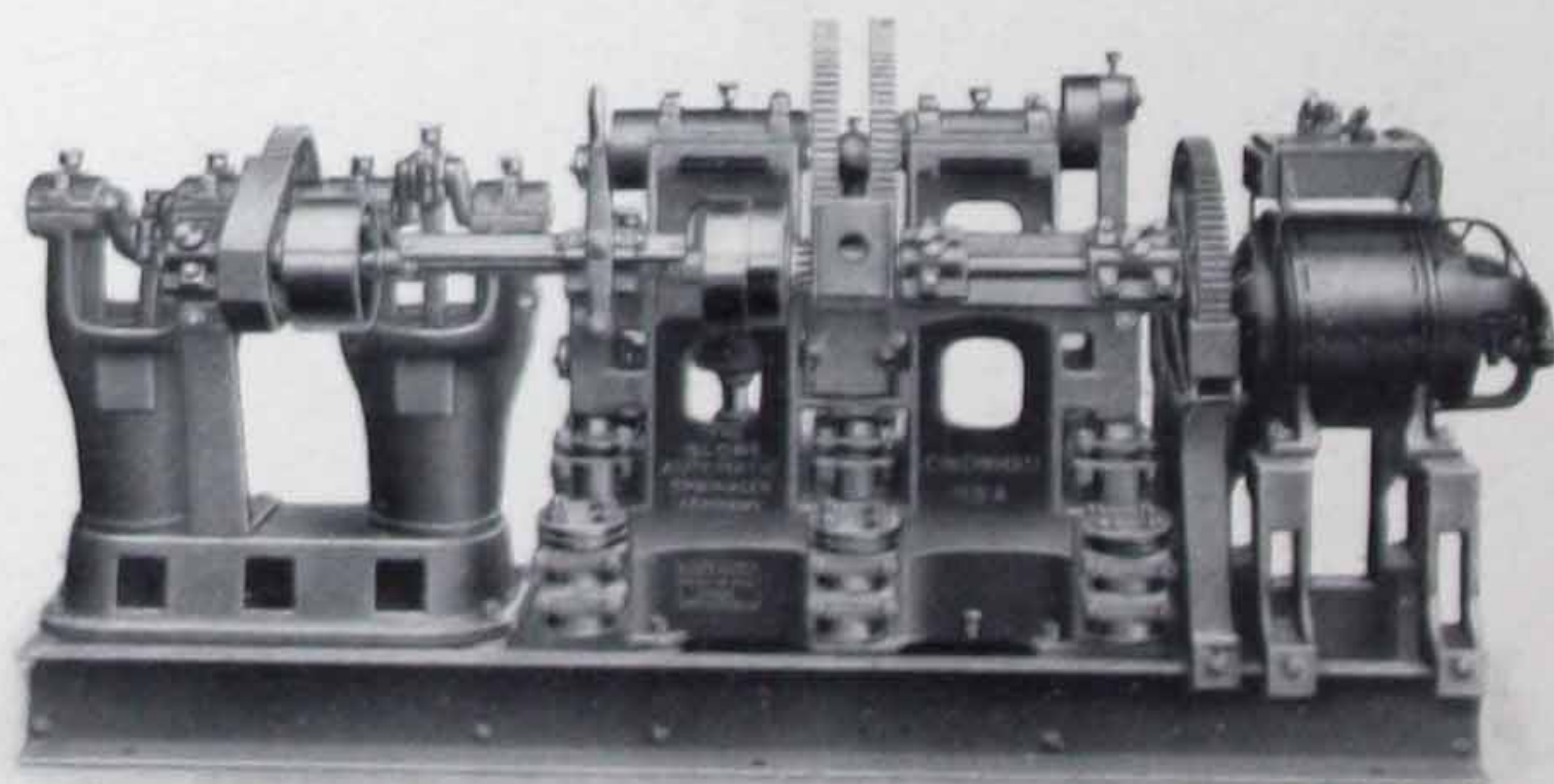
operation. When the adjoining building burns, the turning of a valve drops a curtain of water over these vulnerable parts of the building, giving the owner of same the protection of a fire department at these points without the unnecessary drenching of the balance of his property to retard the progress of the flames. The Underwriters endorse this protection and grant concessions in rates where installed, as it minimizes the hazard of the neighboring property.

## *Sprinkler Engineering*

Globe Sprinklers are approved by all insurance organizations. As the requirements of different insurance interests vary, a lay-out of the proposed system showing the water supplies and other details of the property is prepared by the Globe Engineering Department, adhering strictly to the rules of the Underwriters who carry the insurance on the property in question. This lay-out, or preliminary skeleton plan, is then submitted to the proper authorities having jurisdiction for their approval. Upon return of the approved plans, estimate is prepared and the proposition drawn subject to the inspection and approval of the insurance interests specified. This precaution absolutely protects any prospective purchaser of a Globe Sprinkler System, and assures the lowest obtainable insurance rates.

The Globe Engineering Department is composed of trained fire prevention engineers of known ability only, who have a thorough knowledge of all questions pertaining to fire protection and the installation of sprinkler equipments. Owing to the varying requirements of the Underwriters, as well as differing local conditions, careful study is given each case as it arises.

The National Board of Fire Underwriters, realizing the importance of the proper installation of sprinkler equipments and rigid adherence to their rules and all intricate engineering details, have recently published a resolution, discouraging companies, other than those



*Combination Motor Driven Triplex Filling  
Pump and Air Compressor*

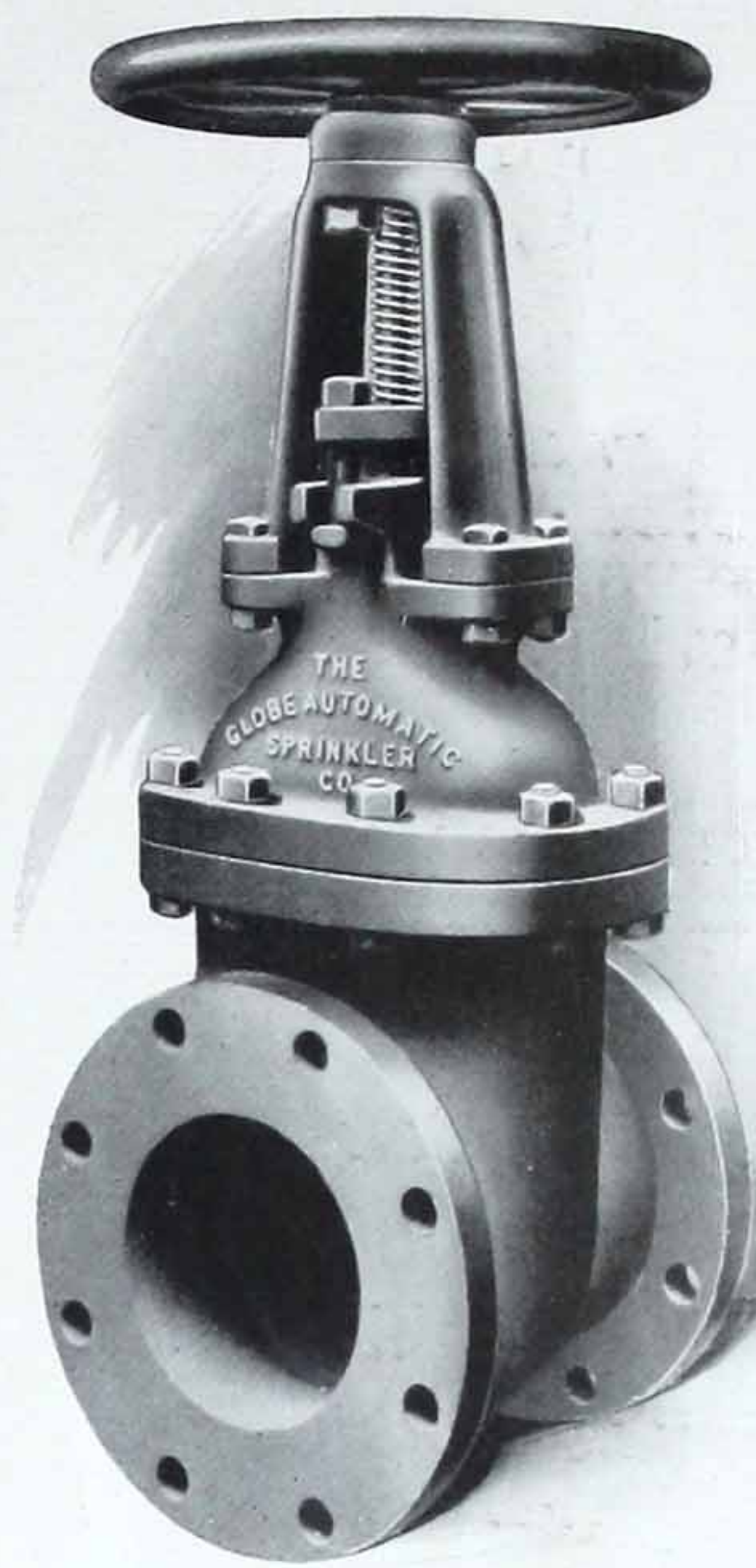


# GLOBE AUTOMATIC SPRINKLER SYSTEM

regularly engaged in the Automatic Sprinkler business, from attempting this class of work. Contracting for the installation of sprinkler equipments is a distinct business and differs radically from all other pipe work.

The Globe Company, being engaged exclusively in the manufacture of sprinkler devices and installation of complete systems, has perfected an organization of trained sprinkler men in all departments. All Globe construction crews are exclusively manned by sprinkler men who have been carefully selected from among the most experienced sprinkler fitters on account of their ability and capacity for work. This guarantees efficient workmanship and general satisfaction in the innumerable details connected with the work.

All systems are thoroughly tested under excess pressure to 150 pounds before the men leave, assuring the purchaser that the entire equipment is absolutely tight and free from all leaks. The purchaser is, in this way, protected against petty annoyances. When the equipment is completed, letter of approval is issued by the Underwriters having jurisdiction, accepting the system as thoroughly efficient and installed in accordance with their requirements. This certificate entitles the purchaser to reduced insurance rates upon contents and buildings.



*Underwriters Pattern Outside  
Screw Yoke Gate Valve  
for Inside Control of  
Sprinkler System*



## *Description of Sprinkler Head*

The Globe Sprinkler Head (issue B) is especially designed to withstand severe usage in installation, i. e., from corrosive influences, liability of clogging from dirt, and flying particles in the air, and blows from ladders, poles or breaking belts. The frame of the sprinkler is a heavy bronze casting to which the distributor is firmly fixed. The acting parts are of rolled phosphor bronze that resist the effects of corrosion and retain their elasticity indefinitely, under the changes of temperature to which a sprinkler is exposed, approxi-



# GLOBE AUTOMATIC SPRINKLER SYSTEM

mately from 40 degrees below to 100 degrees above zero. This condition causes some sprinklers to become leaky in the course of time, but the design of the Globe Sprinkler compensates the strain so caused that no part of the sprinkler suffers.

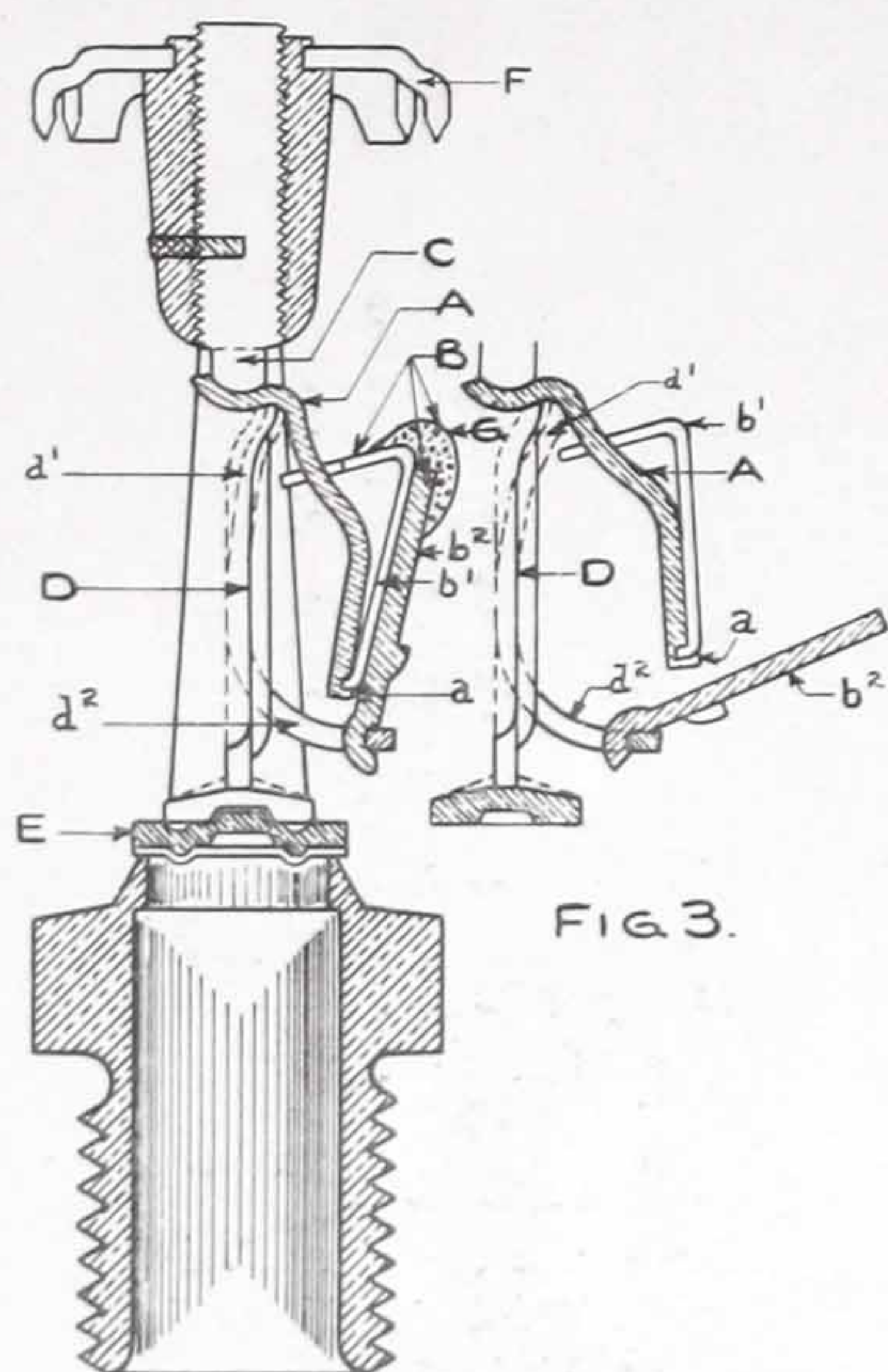


FIG. 2.

FIG. 2 — A is a broad lever of phosphor bronze that carries the fusible link B, composed of the pieces b-1 and b-2. This lever A and link B, as a unit, are put under tension in the assembling of the sprinkler, reacting on the compression screw C and strut D. Strut D is provided with what is termed as two “spring fingers;” one shown in Fig. 2 marked d-1. The lever A is held in tension by the loop d-2, integral with strut D, that engages the lower end of the b-2 member of the fusible link. G is a mound of fusible solder that covers the joint of the members b-1 and b-2, preventing corrosion from reaching between them and destroying the film of solder that unites them.

FIG. 3.

FIG. 3 — Fig. 3 illustrates, approximately, the conditions in the strut structure that ensue from exposure to heat. The lever A, released from its tension by the separation of the parts of the fusible link b-1 and b-2 has assumed a different form; the end of the lever “a,” moving from its original position, tosses the member of the fusible link marked b-2 from its path, the end of b-2 rocking over the loop d-2 which held it in position before the exposure to heat. Thus the strut structure is “cleared” from the frame of the sprinkler and a 1/2-inch stream of water, from the orifice heretofore closed, by cap E is released and is shot by the pressure to which it is subject, against the deflector which distributes it in a heavy shower against the ceiling and floor over an area of about 100 square feet. The opening of the head here shown in detail is instantaneous, due to the flexibility of the parts made of rolled phosphor bronze, which, as is well known, approximates tempered steel in the permanency of its spring.

As local conditions vary, the temperature of the atmosphere being above normal in certain places, as, for instance, under skylights, near boilers, etc., one fusing point for sprinkler heads can not be fixed which will meet all conditions equally well. Globe heads are, therefore, manufactured in different grades, depending upon the fusing point at which the links are set, as shown by the following table:



# GLOBE AUTOMATIC SPRINKLER SYSTEM

“Ordinary” (Bronze Color), 160°.

NOTE — To be installed where temperature does not exceed 100°, Fahr.

“Intermediate” (White), 212°.

NOTE — To be installed in skylights, or where the temperature ranges from 101° to 150°, Fahr.

“Hard” (Blue Color), 286°.

NOTE — To be installed in boiler rooms, etc., or where temperature ranges from 151° to 225°, Fahr.

“Extra Hard” (Red Color), 360°.

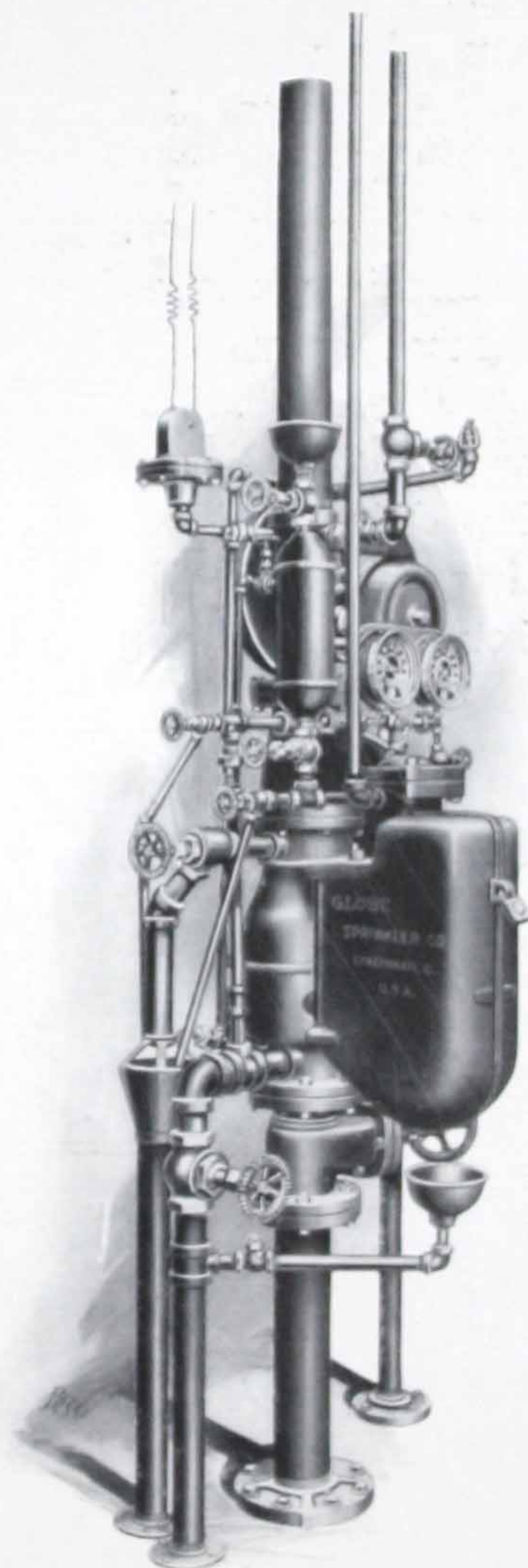
NOTE — To be installed in dry kilns, or where temperature ranges over 225°, Fahr.

The Globe Sprinkler may be relied upon to open at temperatures corresponding to their markings, and all sprinklers when leaving the factory are guaranteed to be tight under 500 pounds pressure per square inch.

The Globe Engineering Department, in making survey, particularly notes the temperature, or possible variations of temperature, depending on occupancy, etc., in the various parts of the building. In drawing up the final plans, careful consideration is given to specifying sprinkler heads of the proper fusing point for every part of the equipment.

## *Dry Pipe Valve*

The Globe Dry Pipe Valve, as explained under description of system, is a mechanical check valve placed at the base of the riser of a sprinkler system, the air under pressure in the system holding back the water by means of this mechanical device, until a fire opens one or more of the heads, allowing the air to escape. This reduced pressure operates or trips the valve, allowing the water to enter the system and extinguish the fire.



*Globe Dry Pipe Valve as installed with Gate Closed Showing Trimmings, Mechanical Alarm and Circuit Closer for Electrical Alarm Attachment*

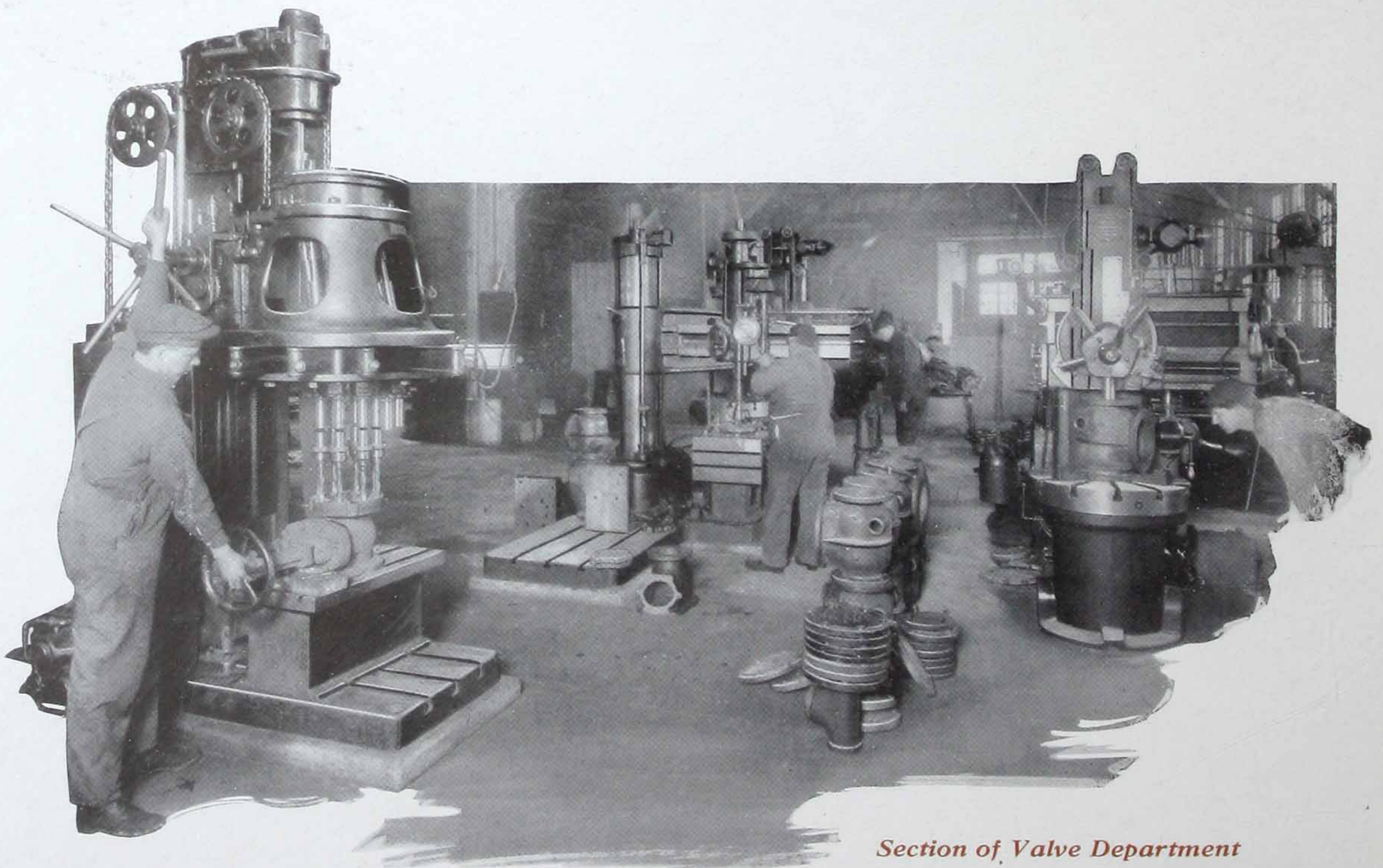


# GLOBE AUTOMATIC SPRINKLER SYSTEM

Dry Pipe Valves are divided into two broad classifications, based upon the fundamental idea of their operation. The one type is known as the differential Dry Pipe Valve, so named because of a definite relation between the air pressure in the system and the water pressure below the valve. This relation controls the moment at which the valve trips. The other type is the mechanical Dry Pipe Valve. In this valve the water pressure does not affect the tripping point to any marked extent.

A Differential Dry Pipe Valve requires air pressure to hold it tight in a definite ratio to the water pressure. Therefore, with high water pressure high air pressure must be maintained. This governing principle of the Differential Valve results in uncertain efficiency, because it is necessary to carry air pressure high enough to offset the highest water pressure that may be met with in the supply.

The Mechanical Valve, on the other hand, has a definite tripping point irrespective of the water pressure. The Globe Dry Valve is of this latter type and lays claim to greater uniformity in its tripping point than any other dry pipe valve manufactured. The tripping point of the Globe Dry Valve can be definitely set between 11 and 15 pounds for all water pressures. This assures certainty of quick



*Section of Valve Department*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

action in the event of a fire. No excessive air pressure is necessary, 30 pounds being sufficient, the fall of the air pressure to the tripping point being as nearly instantaneous as it is possible to attain in a mechanical device of this kind.

The Globe Dry Pipe Valve is of the straightway type and is a perfect device for the purpose intended, being designed:

1st — For the unobstructed flow of water when tripped.

2d — The protection of parts from damage in the act of tripping.

3rd — The automatic prevention of any conditions that might exist after tripping a Dry Pipe Valve, tending to cripple or damage the system (such as might be brought about by freezing).

4th — The extreme simplicity of the device that enables a novice to easily set it from the printed directions without making any errors or omitting anything that would be a menace.

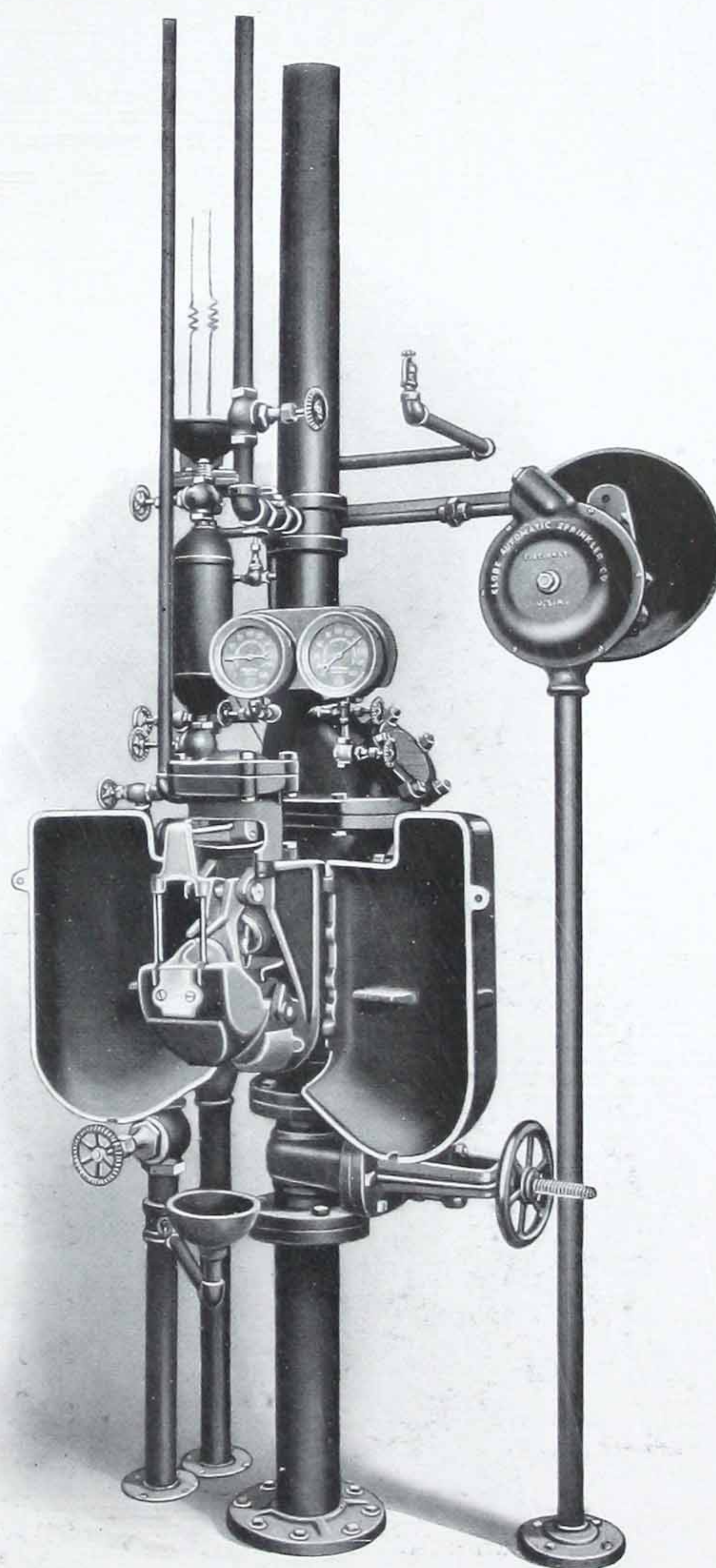
5th — The fact that 500 pounds of water to the square inch can be held by hand on the compression screw handwheel.

6th — That no wrench is required to tighten the valve, and that the resilient lever structure and design of the valve make it proof against accidental tripping, leakage or permanent injury from water hammer.

7th — That it is never necessary to keep more than 30 pounds of air on the system and it is safe with 20 pounds, tripping at about 12 pounds, no matter what the water pressure may be.

## *Wet Pipe Alarm Valve*

Wet systems generally require a wet alarm valve at foot of the riser, designed to cause a bell alarm when a sprinkler opens.



*Globe Dry Pipe Valve  
Gates Open—Set*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

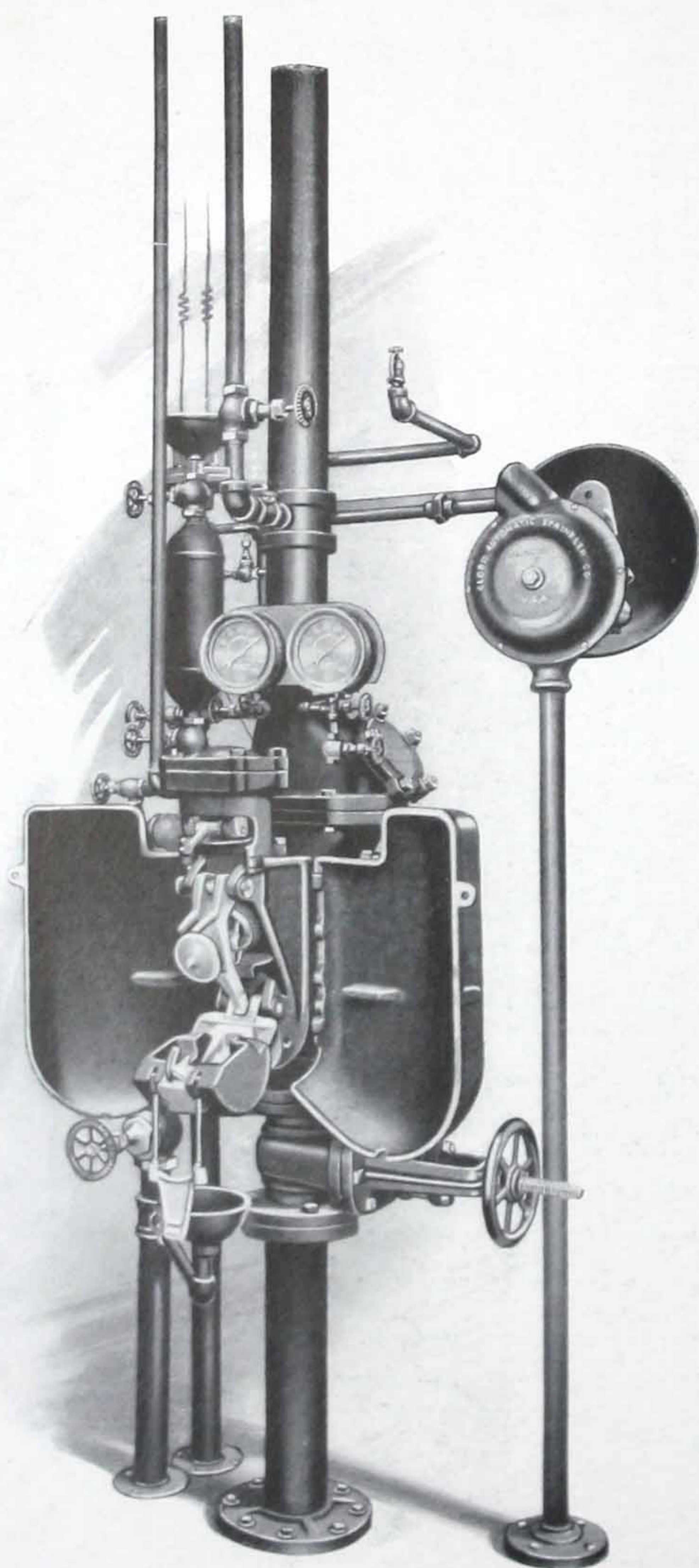
The Wet Pipe Alarm Valve is, broadly speaking, an iron body check valve, the clapper of which is attached to an electrical circuit-closing device. The opening of the head allows the water to circulate through the system passing through the check valve, the opening of the clapper closing the circuit. This closing of the circuit rings an electrical gong. The plate shows the valve with all necessary trimmings and with the circuit-closing device, from which the wires are connected to the gong in the office or other part of the building. The valve here shown is also connected to a me-

chanical gong which appears on the plate. The water circulating through the valve operates a water wheel which rings the mechanical gong.

The Alarm System is an important feature of the sprinkler equipment, as it is by this agency that persons within hearing are automatically and instantaneously notified of the opening of a sprinkler head, and are brought directly to the seat of the fire. A water rotary (mechanical), or electrical gong, or both, are installed on all equipments. Both types of alarms are also arranged for attachment to dry pipe valves as shown on plate herewith. When the electrical and mechanical gongs are used on one system, the electrical gong is usually placed on the inside and the mechanical gong on the outside of the building.

In cities where the water pressure is not constant, or where there is danger of "water hammer," which might cause false alarms, owing to the increased pressure striking the clapper and temporarily closing the circuit, a retarding chamber is installed in connection with the valve.

Momentary openings of the clapper of the valve, caused by "water hammer," and



*Globe Dry Pipe Valve  
Gates Open — Tripped*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

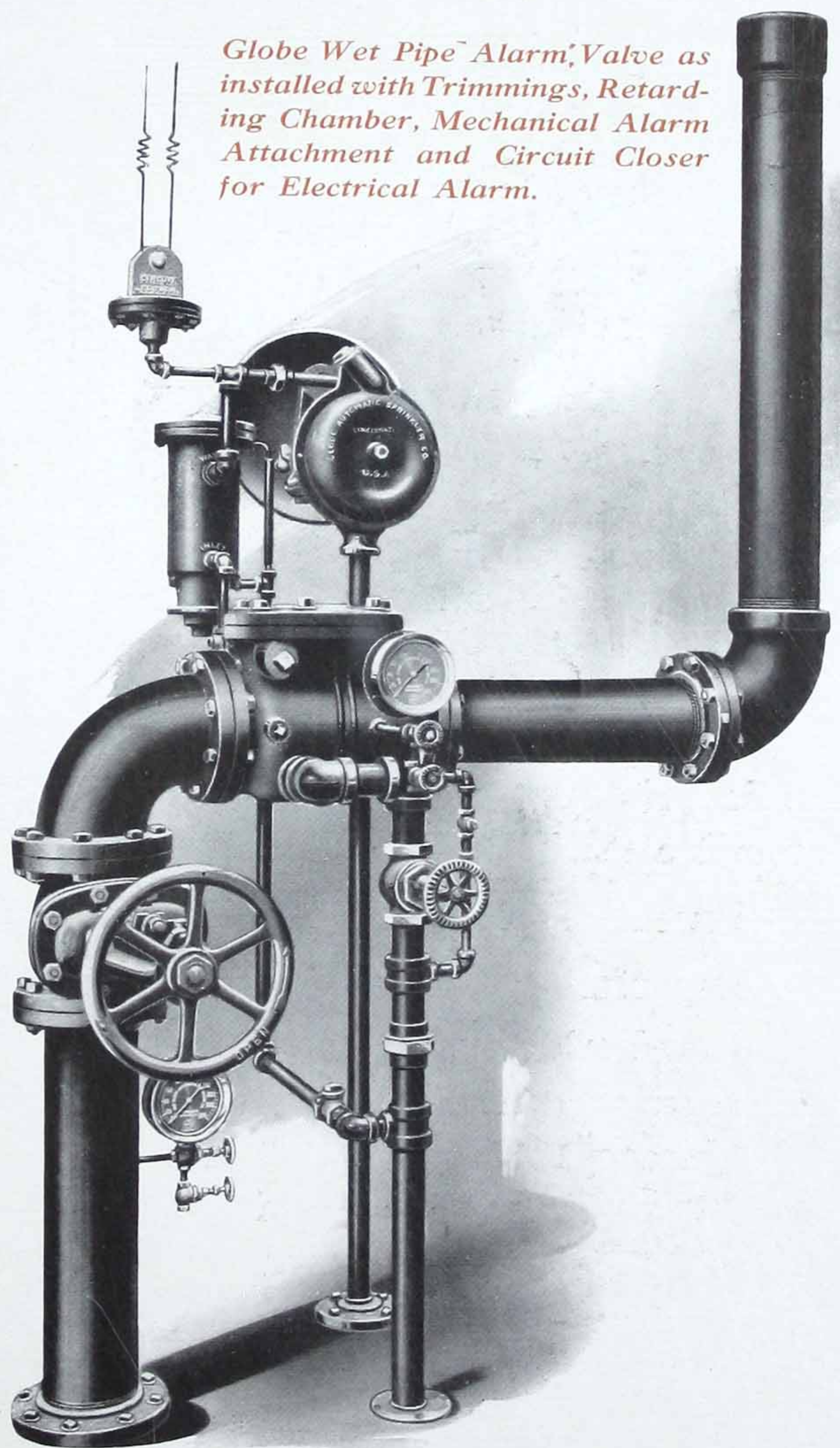
variations of the pressure below the valve, do not allow this chamber to fill, hence no closing of the switch. Proper arrangements are made for venting the chamber to relieve air cushioning and vacuum.

## *Description of Factory*

The selection of Cincinnati as the location for the works of the Globe Automatic Sprinkler Company was made on account of its unequalled position as a point of distribution to all parts of the United States. Globe Equipments are shipped to all parts complete, from the siding of the Pennsylvania Railroad, direct to customers in separate cars, eliminating all danger incident to rehandling. All material is carefully inspected before packing, insuring the customer as far as possible against the use of defective materials. The system of double checking employed further protects the customer against any delays in installation when material is received at destination. When the erecting force arrives all the material is on the ground and the equipment is installed with the greatest dispatch consistent with good workmanship. There is no danger that important parts of the equipment will be found missing by the foreman in checking up the material which usually results in delays and waiting for further shipments.

The arrangement of the departments within the factory is designed with a special view to economy of time and expense in handling all material.

*Globe Wet Pipe Alarm Valve as installed with Trimmings, Retarding Chamber, Mechanical Alarm Attachment and Circuit Closer for Electrical Alarm.*





# GLOBE AUTOMATIC SPRINKLER SYSTEM

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All pipe is received in carload lots and unloaded by an electric crane equipped with electric magnets which drop the pipe into the proper bins. The cutting and threading machines are placed according to capacity opposite the bins containing the pipe of corresponding sizes. From the threading machines the pipe is taken to the benches, where expert fitters screw on the proper fittings. All pipe and fittings are then packed in the assembling room, and properly labeled according to plans approved by the Underwriters. The fitting bins occupy the entire basement of the assembling warehouse, which is an addition to the main factory building, and parallel to the railroad siding. Fittings are received in carload lots in barrels, which are shunted directly from the car on a specially constructed chute. From the bins the fittings are taken on an electric elevator to the assembling room and prepared for shipment, or to be first attached to the pipe. At no time are fittings taken into the factory building proper, and from the time of arrival to the time of shipment are hauled but a few feet.

This careful arrangement is the secret of the satisfaction given customers in the promptness of factory shipments.

The Globe Automatic Sprinkler Company has consistently maintained a policy of specializing on service, and has been fortunate in meeting with unqualified success in pleasing its customers.

## *ESTIMATES AND SPECIFICATIONS*

Any inquiries relating to the advisability of protecting any property with automatic sprinklers, or other fire protective appliances are solicited, and will be given prompt attention, without incurring obligations.

Executive office and works at No. 1610 Reading Road, Cincinnati, U. S. A.

Department offices are maintained at —

New York City, 47 West 34th Street.

Cleveland, 612 Cuyahoga Bldg.

Chicago, 1105 Association Bldg.

Philadelphia, 1114-5 Philadelphia Stock Exchange Bldg.

Minneapolis, 823 Plymouth Bldg.

Buffalo, 481 Ellicott Square.

St. Louis, 1025 Pierce Bldg.

Atlanta, 507 Equitable Bldg.

At any of the above, full information and figures showing the cost of equipping any property with a Globe Sprinkler System can be obtained. Where an estimate upon the cost of an equipment is desired by mail, preliminary to further



# GLOBE AUTOMATIC SPRINKLER SYSTEM

consideration of the proposition, the following data is necessary:

- 1 — Detailed blueprints, showing construction of buildings.
- 2 — Give exact location of buildings, naming streets near buildings.
- 3 — Give exact distance of curb line from buildings.
- 4 — Give size and pressure of city mains, marking best location for city connection. (Unless otherwise noted, it is assumed that the purchaser will furnish city connection and all necessary excavating, back-filling, carpentry and masonry.)
- 5 — State whether city mains around building are circulating or dead; also give location of any city hydrants.
- 6 — Note best location for pressure or gravity tanks.
- 7 — State whether buildings are brick, iron clad, concrete or frame. Give exact measurements of all posts and beams, also exact measurements of all beams from center to center, also from wall to center of nearest beam. State whether ceilings and roofs are of open joist, smooth sheathes, or concrete construction. State length of buildings each floor; also occupancy of each floor in each building. State whether basement floor is of wood, concrete or dirt. State which buildings are heated during cold seasons. If buildings are unheated and dry pipe systems are necessary, shall the Globe Automatic Sprinkler Company furnish boxing around dry valve? If hydrants are required by insurance interests, state whether customer will furnish necessary hose and hose house equipment. State whether high or low-pressure boilers are used. If high pressure, state amount of steam pressure carried.
- 8 — State nature of electric current entering the building.
- 9 — State whether insurance will be carried in stock or mutual companies.
- 10 — State volume of insurance carried on stock and building, also present rate.



*Sidewalk Pattern*

*Siamese Steamer Connections for  
Fire Engine Attachment*



*Wall Pattern*



# GLOBE AUTOMATIC SPRINKLER SYSTEM

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*In purchasing an automatic Sprinkler equipment, remember that a Globe System guarantees :*

- 1—Underwriters' approval, which means the lowest obtainable insurance rates.*
- 2—Thorough engineering.*
- 3—Careful workmanship.*
- 4—Prompt service, in shipment and installation.*
- 5—No leaks and other annoyances.*
- 6—General satisfaction.*



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